

Charlotte, Liam, Victoria, Justin

# Materials

## Purchased Materials (\$37)

2x Steel Rod (1 in. dia; 6 in length)

2x Bronze Bearings (1 in. ID)

## Scavenged Materials

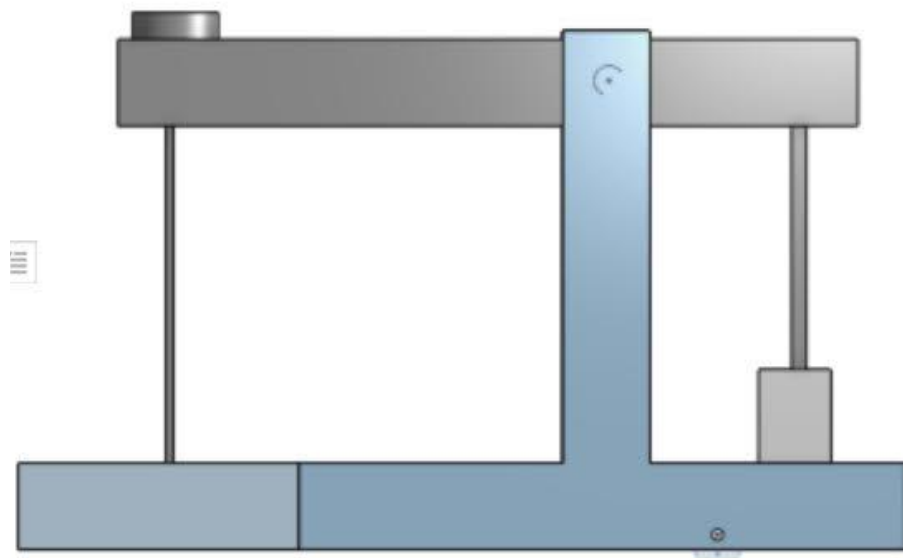
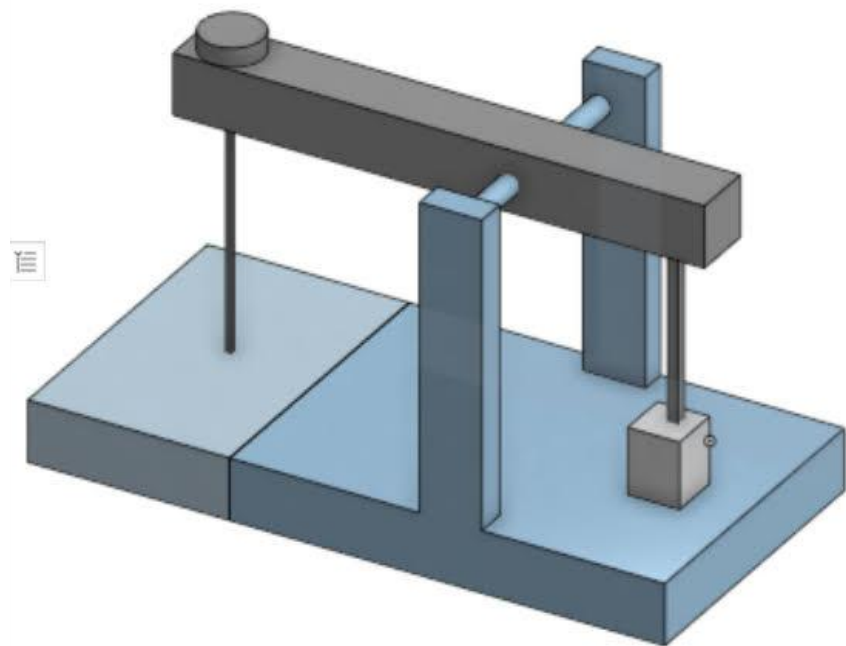
3x Wood Plank (1.5 in. x 1.5 in. x 8 ft)

6x Wood Board (1 ft. x .75 in. x 6 ft)

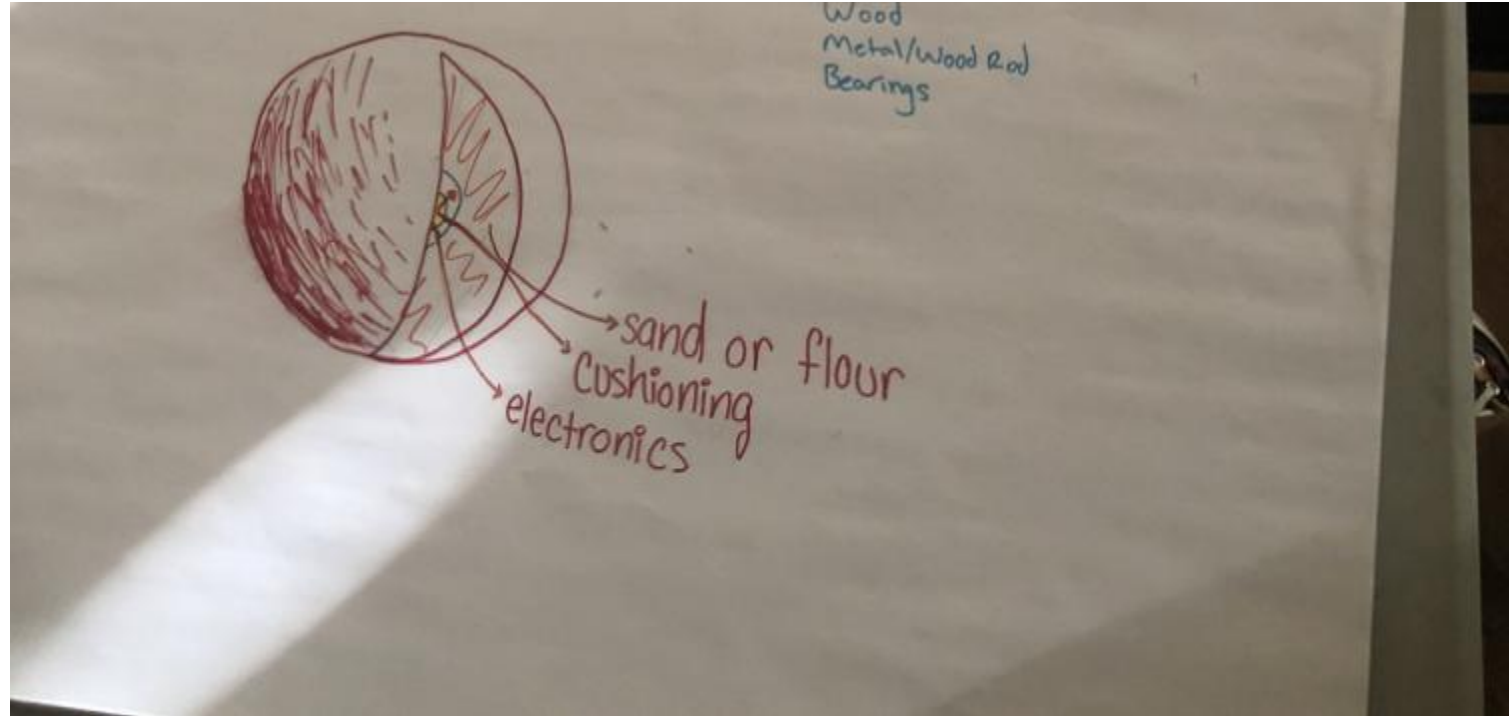
Misc. Weights



# CAD- using onShape

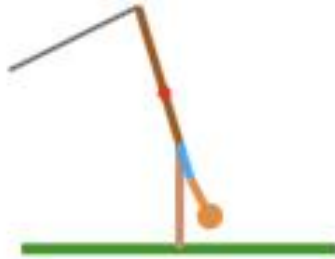


# Projectile/Lander



## Details/Calculations

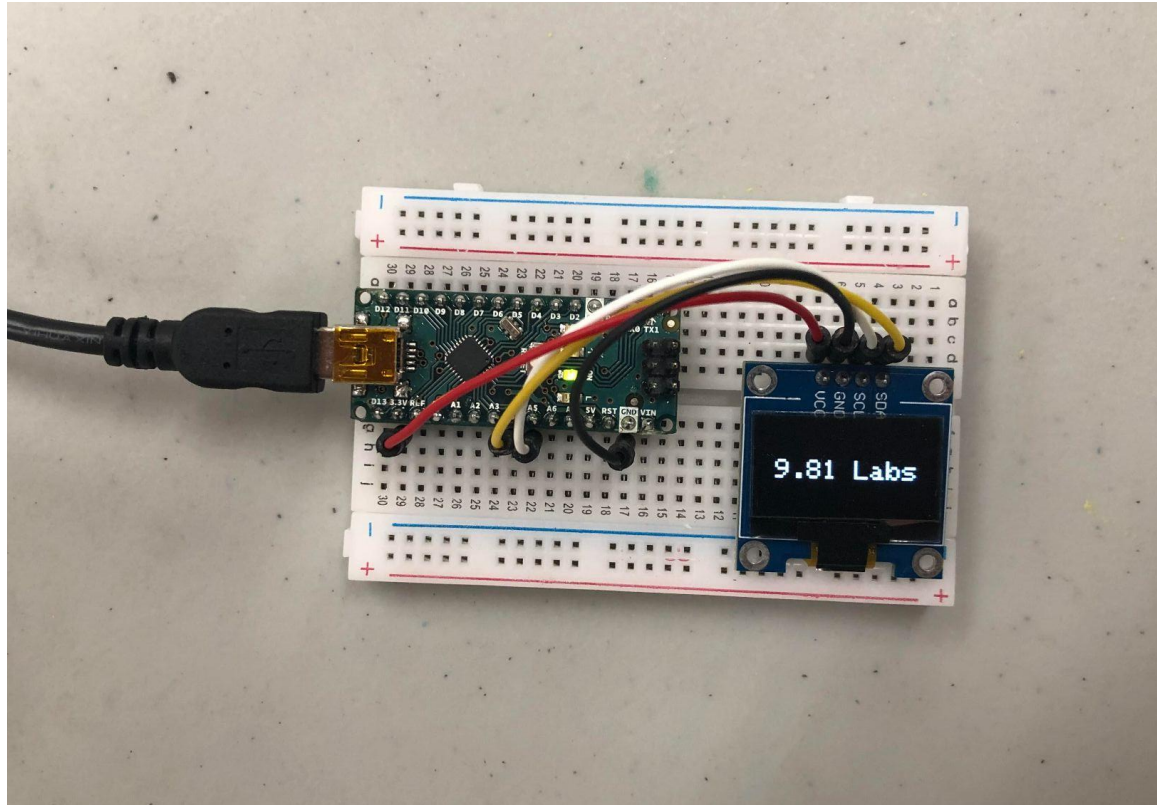
Using trebuchet simulator aka [www.virtualtrebuchet.com](http://www.virtualtrebuchet.com)



	Current	Max
<b>Distance</b>	12.883 ft	20.475 ft
<b>Height</b>	96.288 ft	122.799 ft
<b>Time</b>	4.400 s	5.961 s

<b>① Energy Efficiency</b>	0.433
<b>① Range Efficiency</b>	0.031
<b>Release Velocity</b>	94.975 ft/s

# Electronics- Arduino



# Thank you!!

Invest ;) ==>>>

